Claims

1. Apparatus for injecting a fluid into body tissue, the apparatus comprising:
    a hollow needle; and
    fluid delivery means,
wherein the apparatus is adapted to actuate the fluid delivery means in use so as to concurrently inject fluid into body tissue during insertion of the needle into the said body tissue.

2. Appatatus as claimed in claim 1 adapted to automatically inject fluid into body tissue during insertion.

3. Apparatus as claimed in claim 1 or claim 2, further comprising needle insertion means for guiding insertion of the needle into the body tissue.

4. Apparatus as claimed in any of claim 1 or claim 2, further comprising means for sensing when the needle has been inserted to a sufficient depth for injection of the fluid to commence.

5. Apparatus as claimed in any of claim 1 or claim 2, further comprising means for presetting the depth to which the needle is inserted prior to injection of the fluid being commenced.

6. Apparatus as claimed in claim 4, wherein the sensing means comprises an ultrasound probe.

7. Apparatus as claimed in claim 4, wherein the sensing means comprises means for sensing a change in impedance or resistance.

8. Apparatus as claimed in claim 1 or claim 2, further

comprising:

a base for supporting the needle; and

a housing for receiving the base therein,

wherein the base is moveable relative to the housing such that the needle is retracted within the housing when the base is in a first rearward position relative to the housing and the needle extends out of the housing when the base is in a second forward position within the housing.

9. Apparatus as claimed in claim 1 or claim 2, wherein the fluid delivery means comprise piston driving means adapted to inject fluid at a controlled rate.

10. Apparatus as claimed in claim 9, wherein the piston driving means are actuated by the base being moved in the axial direction relative to the housing.

11. Apparatus as claimed in claim 1 or claim 2, further comprising means for applying a voltage to the needle.

12. Apparatus as claimed in claim 1 or claim 2, further comprising means for recording the identity of the subject to be treated and data from a treatment process.

13. A fluid dispense vessel for use in the apparatus as claimed in claim 1 or claim 2, wherein a bar-code is provided on the vessel to identify the contents thereof.

14. A method of injecting a fluid into body tissue, the method comprising:

injecting the fluid into the body tissue through a hollow needle while the said needle is being inserted into the said body tissue.

15. A method as claimed in claim 14, wherein the needle tip is inserted into the skin and injection is then

carried out while the needle is inserted further into
the body tissue.

16. A method as claimed in claim 14 or 15, wherein the
injection is commenced when the needle reaches a first
desired depth in the body tissue and is stopped when the
needle reaches a second desired depth in the body
tissue.

17. A method as claimed in claim 14 or 15, wherein a
change in impedance or resistance is measure to
determine when the needle has reached a desired depth in
the body tissue.

18. A method as claimed in claim 16, wherein the depth
of the needle in the body tissue is sensed using an
ultrasound transducer.

19. A method of electroporation wherein fluid is
injected into body tissue by the method of claim 14 or 15
and a voltage is then applied to the needle.

20. A method of electroporation wherein fluid is
injected into body tissue by the method of claim 14 or
15, the needle is withdrawn from the body tissue, an
electrode is inserted in the place of the needle, and a
voltage is applied to the electrode.

21. A method of determining when a needle has been
inserted to a desired depth in body tissue comprising
measuring a change in impedance as the needle is
inserted into the body tissue.

22. A method as claimed in claim 21, wherein two
needles are inserted into the body tissue adjacent
oneanother and the impedance between the needles is
measured.